MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2016/2017

MID 3343 - DESIGN SPECIFICATION AND PROTOTYPING

(All sections / Groups)

22 October 2016
9.00 a.m. – 11.00 a.m.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This Question paper consists of 3 pages with 5 Questions only.
2. **Answer FOUR (4) only** from all FIVE (5) questions. The distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

1 (A) Describe the basic process of Compression Molding (support with drawing). Include in your answer three (3) product sample made by this method.

(13 marks)

(B) Describe, with the aid of fully labeled diagrams, the general process of Extrusion Molding. Identify two (2) different type of this process.

(12 marks)

(Total 25 marks)

2. (A) Briefly explain the following:

i) Three (3) different types of process for plastic surface finishing. (9 marks)

ii) Three (3) usage of Polyethylene (PE). (9 marks)

iii) Two (2) other types of plastic (2 marks)

(B) Explain two (2) fundamental differences of product character between the Plastic Injection Molding Process and Plastic (Compression Molding Process.

(5 marks)

(Total 25 marks)

3. (A) Describe the fundamental difference between Pure metal and Alloy and give one (1) example of each material.

(13 marks)

(B) Identify three (3) different criteria of Spinning process and Roll Forming process for metal sheet forming.

(12 marks)

(Total 25 marks)

Continued....

4. (A) Briefly describe the process of metal Investment Casting and provide three (3) advantages of this process.

(13 marks)

(B) Describe the product character and identify two (2) sample of product made from Sand Casting process.

(12 marks)

(Total 25 marks)

5. (A) (i) Identify the purpose of Product Specification and give three (3) parties need of this document.

(9 marks)

(ii) Identify the one (1) criteria for each of the three types of Product Specification.

(6 marks)

(B) Give three (3) advantages of GRP (fiberglass) process and suggest two (2) examples of product application.

(10 marks)

(Total 25 marks)

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